CERTAMEN MELASTOMATACEIS X. 25508

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To a botanist whose ultimate aim is taxonomic orderliness, the Andean flora is a never-ending challenge. In particular, the classification of cordilleran melastomes seems like an Augean stable, with unending adjustments being needed and new character combinations constantly appearing in the herbarium. The current continuation of my velitation accounts for the non-Ecuadorian novelties collected by the Maguires during their 1959 Andean trip, miscellany discovered during a study of W. H. Camp's Ecuadorian collections, and a pasticcio from Peru. Also begun here are the minor adjustments needed to align finally the Melastomataceae for the Flora de Venezuela so as to accord with my crotchets.

MACAIREA LASIOPHYLLA (Benth.) Wurdack, comb. nov.
Chaetogastra lasiophylla Benth., Hook. Journ. Bot. 2: 291. 1840.
Pterolepis lasiophylla (Benth.) Triana, Trans. Linn. Soc. Bot. 28: 40. 1871.
Tibouchina lasiophylla (Benth.) Cogn., Mart. Fl. Bras. 14 (3): 297. 1885.
Acisanthera erecta Gleason, Bull. Torrey Club 58: 412. 1931.
Acisanthera lasiophylla (Benth.) Gleason, Phytologia 3: 243. 1950.
Siphantheropsis williamii Brade, Inst. Nac. Pesqu. Amaz. Publ. Bot. 8: 6. 1958.
One of the fortunate circumstances for scientists in botanical taxonomy is that plants, unlike wives and some other fauna, cannot protest the bandying to which they are subjected. A mute witness to the generic problems in the melastomes is the above-cited depauperate phyton. However, the pubescence and floral features indicate that M. lasiophylla represents a reduced evolutionary offshoot related to M. multinervia Benth., with stamens really quite conformable to other species in the genus. R.I.P.

TIBOUCHINA MARIAE Wurdack, sp. nov.
Sect. Diotanthera. T. laxae (Desr.) Cogn. affinis, sed calycis lobis intus glabris vel in apicibus ultimis sparse pilis glanduliferis ornatis.
Ramuli teretes demum rotundato-quadrangulati sicut inflorescentia sepala extus hypanthiaque modice vel densiuscule pilis erectis gracilibus laevibus glanduliferis 1-2(3.5) mm longis setosi, ramis infra pilis non glanduliferis. Petioli 0.3-1 cm dense breviterque setosi pilis gracilibus non glandulosis;

lamina 3-5.5 X 2-3.5 cm firme membranacea integra vel obscure crenulato-serrulata late ovata vel elliptico-ovata apice late hebeti-acuto vel acuto basi rotundata vel paulo (ad 4 mm) cordata 7-9-nervata nervis secundariis 2-4 mm inter se distantibus nervulis laxiuscule reticulatis, supra modice longo-setulosa pilis gracilibus laevibus 0.7-1.2 mm longis paulo appressis, subtus in nervis primariis dense longo-setulosa in nervulis superficieque modice vel sparse setulosa. Panicula terminalis plerumque 5-12-flora; flores 5-meri, bracteis foliaceis, pedicellis 1-3 cm longis plerumque ad medium vel paulo supra articulatis et bibracteolatis, bracteolis ca. 2 X 1 mm setulosis demum caducis. Hypanthium (ad torum) 5-7 X 3.5 mm; calycis tubus 1 mm altus, lobis 5-7 X 2-3 mm oblongis apice late hebeti-acuto intus glabris vel in parte 1/5-1/3 apicali sparse glanduloso-setulosis basim versus glabris. Petala 16-22 X 13-17 mm obovata apice asymmetrice rotundato vel truncato densiuscule ciliolata ciliis glanduliferis 0.2-0.3 mm vel apicem versus usque ad 0.7 mm longis. Stamina dimorphica glabra; filamenta 12-15 mm vel 8.5-10 mm; antherarum thecae 9-12.5 mm vel 6.5-8 mm subulatae, connectivo basi 3.5-5 mm vel 1-1.5 mm prolongato ventraliter 1.2-1.3 mm incrassato et bilobulato. Stylus 16 X 1 mm glaber; stigma truncatum non expansum; ovarium apice densiuscule striguloso pilis non glanduliferis, lobis apicalibus 2 mm altis.

Type Collection: J. J. Wurdack 632 (holotype US 2404208; isotype USM; 12 additional isotypes to be distributed), collected in Quebrada Molina 5 km below Chachapoyas, Prov. Chachapoyas, Depto. Amazonas, Peru, elev. 2200 m, 30 May 1962. "Lax shrub 1-4 m, locally frequent in moist ravine at forest edge. Petals magenta; anthers purple with yellow connective prolongation."

Paratypes (all Peru): Cajamarca: Cerros de Cutervo, Ferreyra 814; Cutervo, Ferreyra & Acleto 15374. Amazonas: Puma-urcu, Soukup 4048; Pomacocha, Ferreyra & Acleto 15171; Pomacocha-Yambrasbamba, Ferreyra & Acleto 15223; Chachapoyas-Cáclic, López Miranda, Sagástegui, & Collantes 4353; Cerros Calla-Calla, Hutchison & Wright 5649.

The epithet chosen commemorates my botanical artist and plant nurse, who grew the species from seed to flowering size. From the plants cultivated at Beltsville, P. G. Raven has obtained a mitotic chromosome number (to be published elsewhere). Through F. G. Meyer, seeds were also distributed to various botanic gardens. Tibouchina mariae is perhaps the most abundant melastome in the uplands of Depto. Amazonas. In cultivation, it is readily propagated by cuttings. While the flowers are very attractive, the sprawling habit, with rooting at the nodes, detracts from possible use as a house plant.

The typical element in T. laxa has roughened cauline and hypanthial hairs which are eglandular, as well as calyx lobes inside moderately strigulose nearly or quite to the torus (and usually 3-5 mm or more wide). Dr. Alicia Lourteig kindly furnished notes on the Jussieu holotype at Paris (see Macbride photograph 36166). After examining a type sprig (BR) of

T. cymosa Cogn. and also the holotype (US) of T. asperipilis Blake, I can see no reason for any separation from typical material of T. laxa. I have not found any valid publication of T. laxa var. villosissima Cogn., cited by Macbride in the Flora of Peru. Lehmann 4926, from near Cuenca, Ecuador, was annotated by Cogniaux in his own herbarium with this varietal name; since the Lehmann collection shows roughened hypanthial hairs, there will be no validation by me of this varietal name. In addition to the synonymized types above cited and the other material known to Cogniaux, 19 recent collections quite conform to Jussieu's specimen; in this typical form, T. laxa ranges from Oro, Cañar, Azuay, and Loja in Ecuador to Piura and Cajamarca (but not Amazonas) in Peru.

There are two other not too clearly defined variants of T. laxa; one shows smooth (or nearly so) but eglandular hairs (Ecuador: Cañar: Biblian, Asplund 17644; Asorgues, Balls 7083. Azuay: Susudal, Asplund 17814. Peru: Cajamarca: Colasay, Woytkowski 6908), while the other has roughened and gland-tipped hypanthial hairs (Ecuador: Guayas: 118 km east of Guayaquil, Maguire & Maguire 44266. Loja: San Pedro, Townsend A105. Peru: Piura: Ayabaca, Soukup 4299; Abra de Porculla, Ferreyra 13752. Cajamarca: Hualgayoc, Soukup 3853). The two forms are by no means as sharply delimited from the typical element of the species as these specimen citations would indicate, there being variability in abundance of glandulosity and degree of trichome roughening.

Apart from the collections cited above for T. mariae, two specimens from Huambos, Cajamarca, Peru, seem best placed in this species, although one (Soukup 4479) lacks gland-tipped hairs and the other (Ferreyra 8436) has very sparse glandular hairs on the pedicels and hypanthia. The Ecuadorian T. pendula Cogn. resembles T. mariae in calyx lobes, but has essentially isomorphic stamens with very short connective prolongation and hypanthial hairs very slightly roughened and eglandular.

TIBOUCHINA WEBERBAUERI Cogn.

After comparison with Weberbauer 5002 (BR), a series of recent Cuzco collections have been referred to T. weberbaueri: Prov. Convención, Vargas 3461, 13178, 13258; Prov. Urubamba, Vargas 3378. As cited by Macbride in the Flora of Peru, Mexia 8056 is also this species. Two features not noted in the original description are the predominance of 4-merous flowers and the sepals adaxially strigulose apically. The dissected flower in the inner packet of the Cogniaux Herbarium isotype is not from Weberbauer 5002, being 5-merous and with gland-tipped hypanthial and calycine hairs. Both T. decora Gleason and T. tetrapetala Cogn. are closely related to the Cuzco species; the former has 5-merous flowers, while the latter (Bang 2425, US) has minutely barbellate (rather than smooth) cauline hairs.

ERNESTIA KARURUANA Wurdack, sp. nov.

E. tenellae (Bonpl.) DC. affinis, indumento hispido in foliis ramulisque plerumque 3-4 mm longo foliis subsessilibus.

Suffrutex; ramuli obscure quadrangulati sicut folia inflorescentiaque modice pilis laevibus gracilibus erectis (2-)3-4 mm longis armati, pilis in ramulis inflorescentiisque plerumque glanduliferis in foliis plerumque non glandulosis. Petioli ca. 0.2 cm; lamina 2-2.5(-3) X 1-2 cm ovata vel oblongo-ovata apice paulo acuminato basi cordulata 5-7-nervata fragilis setoso-serrulata. Paniculae 6-13 cm longae multiflorae; pedicelli 2.5-3 mm longi; flores 4-meri. Hypanthium (ad torum) 2.5 X 1.7 mm modice pilis glanduliferis gracilibus 1.5-2 mm longis obsitum; calycis tubus 0.3 mm altus, lobis 4.3-4.5 X 0.7 mm anguste lanceatis apice setiferis. Petala 9.5-10.5 X 6-8 mm asymmetrice elliptica quaeque apice setula unica armata. Stamina dimorphica glabra, filamentis 5.5 mm vel 3.5 mm longis, antheris poro terminali minuto ventraliter inclinato dehiscentibus. Stamina maiora: thecae 5.5 mm longae, connectivo infra thecas usque ad calcar dorsale 4 mm prolongato, calcar dorsali 0.3 mm longo et 0.6-0.7 mm supra filamenti insertionem inserto, aristis duabus ventralibus 3.8-4.3 mm longis basi 0.3 mm coalitis simplicibus vel interdum unibarbellatis. Stamina minora: thecae 4 mm longae, connectivo infra thecas usque ad calcar dorsale 0.5 mm prolongato, calcar dorsali 0.4 mm longo et 0.2 mm supra filamenti insertionem inserto, aristis duabus ventralibus 2.7 mm longis basim versus per 0.5 mm paulo incrassatis simplicibus usque ad basim divisis. Stylus 8.5 X 0.2 mm glaber; stigma truncatum; ovarium 3-loculare apice setulis paucis (ca. 8) glanduliferis 0.4-1.3 mm longis coronato.

Type Collection: R. E. Schultes & I. Cabrera 19176 (holotype GH; isotypes NY, US), collected in Savannah Goo-ran-hoo-dá, Mesa de Yambi, Río Karurú, 1°20' N, 71°20' W, Vaupés, Colombia, elev. 290-300 m, 15-16 April 1953. "Flowers white."

Ernestia tenella and the other species with puberulous ovaries (E. ovata Cogn., E. quadriseta Berg ex Triana, E. adenotricha Uribe) have dense cauline hairs less than 1 mm long, foliar hairs less than 2 mm long, and distinctly developed petioles 0.5-2.5 cm long. As previously indicated (Mem. N. Y. Bot. Gard. 10, pt. 5: 136. 1964), at least part of E. tenella shows predominantly 3-locular ovaries. The long hairs of E. karuruana suffice as a species distinction from all congeners. All of the two flower ovaries and six fruit capsules visible on Schultes & Cabrera 19176 showed 3 cells.

MONOCHAETUM HUMBOLDTIANUM (Kunth & Bouché) Kunth ex Walpers var. HIRTUM (Karst.) Wurdack, comb. nov.

Grischowia hirta Karst., Ausw. Neue Gew. 16, pl. 5. 1848.

Monochaetum hirtum (Karst.) Triana, Trans. Linn. Soc. Bot. 28: 64. 1871.

Monochaetum brevifolium Gleason, Am. Journ. Bot. 16: 522. 1929.

No specific distinctions based on pubescence posture or density are possible in the abundantly collected species of the Venezuelan Coastal Cordillera. If the Pico Naiguatá samplings are indicative, the higher elevation (of more exposed habitats?) plants have denser and erect stem hairs. In addition to the collections cited in 1929 for M. hirtum and M. brevifolium, var. hirtum is also now represented by Steyermark 62961 from Naiguatá and Killip & Rohl 37161 and 37204 from between El Junquito and Agua Negra (D.F.), as well as the following originally cited by Gleason as typical M. humboldtianum: Pittier 8130 from the headwaters of the Chichiriviche and Petaquire Rivers and Pittier 6261 from Naiguatá. Pittier 6279, from the lower slopes of Naiguatá, is intermediate between the varieties, while Delgado 58 (from Rancho de Boqueron) varies slightly from var. humboldtianum toward var. hirtum. Steyermark 61589 from Anzoátegui (cited in Fieldiana Bot. 28: 1037. 1957 as M. hirtum) actually represents M. bonplandii (Kunth) Naud., with sepals tardily deciduous in late fruit; vegetatively M. bonplandii is distinguishable from M. humboldtianum var. hirtum by the much denser and finer cauline and foliar pubescence.

MONOCHAETUM HUMBOLDTIANUM (Kunth & Bouche) Kunth ex Walpers var. CHARDONII Wurdack, var. nov.

A var. hirto differt foliis supra densiuscule aequaliterque brevistrigosis pilis gracilibus 12-14/mm quad.

Type Collection: C. E. Chardon 201 (holotype US 1801626), collected along the highway to Choroni, Edo. Aragua, Venezuela, elev. 1200 m, 26 Oct. 1940.

Paratype: G. Ferrari 72 (Herb. Maracay), from "cumbre de la carretera de Choroni," Edo. Aragua, Venezuela, elev. 1500 m.

Both other varieties have upper leaf surface hairs 1-3/ sq. mm and in distinct strips, with longitudinal glabrous areas along the primary veins. Despite the marked disparity in foliar pubescence, no floral distinctions are apparent; the cauline pubescence is erect as in var. hirtum.

MONOCHAETUM GLEASONIANUM Wurdack, sp. nov.

Sect. Grischowia. M. lindeniano Naud. affinis, sed ramulorum pubescentia parciore hypanthiis sparse gracili-strigulosis staminis maioris appendicibus crassioribus hebetibus.

Frutex; ramuli teretes vel sulcato-quadrangulares sicut petioli foliorum venae primariae subtus sparse vel modice laxo-strigulosi pilis gracilibus laevibus, in nodis gracili-setosi. Petioli 0.5-1 cm; lamina 2-4 X 1-2 cm ovato-elliptica apice acuto vel paulo acuminato basi late acuta, breviter 5-plinervia pare interiore 1-3 mm supra basim inserto nervis secundariis supra occultis, supra in lineis inter nervos sparse gracili-strigosa pilis 1-2 mm longis, subtus in superficie sparse laxostrigulosa. Flores in dichasiis terminalibus 1-3-floris dispositi; pedicelli 0.5-1 cm longi sicut sepala extus hypanthi-aque sparse strigulosi pilis gracilibus 0.3-0.5 mm longis.

Hypanthium (ad torum) 6 mm longum extus in tori regione sparse pilis suberectis gracilibus 1-2 mm longis armatum; sepala 6-7 X 2 mm post anthesim decidua lanceata acuta ciliolata. Petala non visa. Stamina glabra, filamentis 5 mm longis. Stamina maiora: antherarum thecae 4 mm longae, appendice dorsali 3.5-4 X 0.5 X 0.7 mm apice rotundato. Stamina minora: antherarum thecae 4 mm longae, appendice dorsali 3.5 X 0.3 mm circum medium 1 mm lata et paulo auriculata apice hebeti-acuto. Stylus 8 X 0.4 mm glaber; ovarii apex pilis p. p. glanduliferis modice armatus.

Type Collection: Ernest Reed (Syracuse University Andean Expedition) 32 (holotype US 1618468), collected in terrace alluvium at Chachapo, Edo. Mérida, Venezuela, elev. 2620 m, 18 Jan. 1931.

Paratype: Reed 48, from the same locality.

Monochaetum lindenianum has dense spreading cauline pubescence, upper leaf surface hairs in strips exceeding the glabrous vein bands, moderately short-strigose or long-strigulose or appressed-setose hypanthia (hairs averaging 1-1.5 mm in length), and acute or acuminate anther appendages. Monochaetum meridense (Kl. ex Karst.) Naud. has sparser foliar pubescence and linear (sterile) small anthers, while M. laxifolium Gleason shows 7-plinerved leaves with shorter (ca. 0.5-0.7 mm long) upper surface hairs, essentially glabrous eciliate sepals, and isomorphic stamens. The other species of Gleason's group Lindenianae, M. ciliatum Gleason, has sparsely fine-setose branches and longer hypanthial hairs. The general vegetative aspect of M. gleasonianum is like that of M. lineatum (D. Don) Naud. which, however, has persistent sepals and filiform small anther appendages. Dr. Gleason had annotated the Reed collections as probably undescribed and had noted the affinity with M. lindenianum.

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AXINAEA TOVARII Wurdack, sp. nov.

A. sclerophyllae Triana et A. tomentosae Cogn. affinis, sed foliis proportionaliter angustioribus subtus demum glabratis.

Ramuli primum quadrisulcati demum rotundato-quadrangulati sicut petioli foliorum venae primariae hypanthia (basim versus) inflorescentiarum rami pedicellique primum dense pilis barbellatis 0.4-0.7 (-1) mm longis erectis armati demum glabrati. Petioli 3.5-5.5 cm; lamina 11.5-21.5 X 3.5-8.5 cm subcoriacea basim versus integra apicem versus inconspicue serrulata (dentibus 0.2-0.3 mm altis et 5-9 mm inter se distantibus) elliptica apice per 1-2 cm gradatim hebeti-acuminato basi acuta (basi ipsa paulo rotundata), 5-nervata vel paulo (usque ad 5 mm) 5-plinervata (jugo debili inframarginali neglecto) nervis secundariis ca. 3 mm inter se distantibus sicut nervulis supra et subtus paulo elevatis nervulis sublaxe reticulatis areolis ca. 1 mm latis, supra glabra, subtus in nervulis superficieque primum sparse puberula pilis barbellatis crassis 0.1-0.3 mm longis demum glabrata. Panicula 7-10 X 7-9 cm ramis paulo deflexis, pedicellis 2-5 X 1 mm, bracteolis 0.5-0.7 X 0.3 mm oblongis caducis ob pilos fere occultis; flores 5-meri. Hypanthium (ad torum) 5.5 X 7.5 mm;

calyx 2 mm altus subglaber limbo integro, dentibus exterioribus inconspicuis 0.5 mm longis hebetibus vix elevatis. Petala 16-17 X 9.5-10 mm glabra oblongo-obovata apice asymmetrice rotundato et inconspicue retuso. Filamenta 8-9 mm glabra; antherarum thecae 4.5-5.5 mm longae oblongo-subulatae poro minuto dorsaliter inclinato, appendice dorsali inflata 3-4 X 2-2.5 mm apice hebeti. Stylus 22 X 1.7-0.8 mm in ovarii apice 1.5 mm immersus; stigma 0.8 mm latum; ovarium 5-loculare glabrum apice 5-lobulato lobulis 0.7-1 mm longis et 0.3-0.6 mm retusis.

Type Collection: Oscar Tovar 4753 (holotype US 2446955; isotype USM), collected in ceja de montana at Marcavalle, between Huachocolpa and Tintay, Prov. Tayacaja, Depto. Huancavelica, Peru, elev. 2700 m, 20 April 1964. "Arbol 7-10 m. Flores purpúreas."

Both suggested relatives have leaf blades with length/width ratio mostly 1.5-2 (rather than 2.5-3.2), as well as persistently puberulous lower surfaces. Axinaea sclerophylla has considerably larger hypanthia and A. tomentosa shows slightly deflexed leaf base auricles. Both A. pennellii Gleason and A. weberbaueri Cogn., with leaf blades distinctly serrulate and basally auricled, are more distant relatives; the former species has essentially glabrous hypanthia, while the latter has quite small hypanthia.

MERIANIA BRITTONIANA Wurdack, nom. nov.

Axinaea speciosa Britton, Bull. Torrey Club 17: 57. 1890, non M. speciosa (Bonpl.) Naud.

MERIANIA CUZCOANA Wurdack, sp. nov. 3762

M. brittonianae Wurdack affinis, sed ramulis novellis inflorescentiisque glaberrimis foliis subtus non furfuraceis trinervatis.

Ramuli primum indistincte quadrangulati demum teretes, sicut folia inflorescentiae hypanthiaque glabri. Petioli 2-2.5 cm graciles; lamina 5.5-9.5 X 2.5-3.2 cm tenuiter coriacea integra elliptica vel paulo oblongo-elliptica apice acuto basi obtusa (basi ipsa plerumque rotundata et auriculato-recurvata per 1-2 mm), trinervata nervis primariis lateralibus basim versus per 2-3 mm costa parallelis nervis secundariis tenuibus inconspicuis ca. 1 mm inter se distantibus nervulis inconspicuis anastomosantibus (areolis 0.3-0.5 mm latis), subtus sparse puncticulata punctulis primum nigro-rubris demum nigris. Panicula 8-10 cm longa submultiflora; flores 5-meri, pedicellis 1.5-2 cm longis ad medium vel paulo supra articulatis, bracteolis delapsis non visis. Hypanthium (ad torum) 8.5-9 mm altum glabrum; calycis limbus 1.5 mm altus integer extus glaber intus dense resinoso-granulosus, dentibus exterioribus inconspicuis carnulosis 0.3-0.5 mm eminentibus. Petala 24-26 X 18 mm glabra obovata apice asymmetrice rotundato-truncato. Stamina isomorphica glabra; filamenta 12.5-13 mm; antherarum thecae deflexae 8-8.5 mm longae, connectivo infra filamenti insertionem in calcari crassiusculo 3.5 mm longo (distaliter per 0.5 mm subabrupte hebeti-caudato) et dorsaliter dente ascendente hebeti crassiusculo 0.5 mm libero armato. Stylus 11-15 X 0.9-0.5 mm glaber in

ovarii apice 0.7-1 mm immersus; stigma truncatum non expansum; ovarium 5-loculare glabrum apice lobulis 5 breviter emarginatis 0.7 mm longis armato.

Type Collection: C. Vargas C. 5107 (holotype US 2438729; isotype CUZ), collected in "laderas boscosas de Pillahuata," Prov. Paucartambo, Depto. Cuzco, Peru, elev. 2000 m, 9-10 May 1945. "Arbusto 6-8 m. Corola rojo-púrpura oscuro."

Meriania brittoniana has distinctly plinerved leaves (the inner pair of primary lateral veins diverging 1-1.5 cm above the blade base) and caducously stellulate- or pinoid-furfuraceous young branchlets and inflorescences. From the general facies, both species should probably be aligned with the 6-merous M. hexamera Sprague and M. huilensis Wurdack. The sectional delimitations now used in Meriania are obviously artificial, but surely the four above-discussed species belong near M. rigida (Benth.) Triana. Although Eves in his revision of Axinaea accepted Britton's generic placement of M. brittoniana without discussion, the stamens in this species lack a connective sac and are very like those of the suggested relatives in Meriania. Britton's epithet is unavailable in Meriania, having been preoccupied in M. speciosa (Bonpl.) Naud.

3763 MERIANIA VARGASII Wurdack, sp. nov.

In staminum characteribus M. calophyllae (Cham.) Triana et M. arboreae (Naud.) Triana affinis, sed foliis tenuioribus late oblanceolatis 5-plinervatis hypanthii pilis longioribus differt.

Ramuli primum sulcato-quadrangulati demum subquadrangulati sicut petioli inflorescentiaque pilis 0.5-1 (in nodis usque ad 2) mm longis basim versus paulo barbellatis interdum minute caduceque glanduliferis armati tarde glabrati. Petioli ca. 1.5 cm; lamina 16-20 X 5-7 cm membranacea apicem versus serrulata (dentibus 3-4 mm inter se distantibus et ca. 1 mm altis) late oblanceatis apice paulo hebeti-acuminato basi attenuata (basi ipsa abrupte rotundata), 5-plinervata (pare tenui exteriore inframarginali neglecto) pare interiore 0.7-1.5 cm supra basim inserto nervis secundariis 4-7 mm inter se distantibus tertiariis planis laxiuscule reticulatis, supra glabra, subtus in nervis primariis secundariisque modice et in nervulis sparsiuscule pilis gracilibus 1-1.5 mm longis basim versus paulo barbellatis interdum glanduliferis armata in superficie glabra. Pedunculus 6 cm; panicula racemiformis pauciflora, bracteis bracteolisque caducis non visis; pedicelli ca. 1 cm longi ad medium articulati; flores 5-meri. Hypanthium (ad torum) 8-9 mm longum sicut sepala dense sericeostrigosum pilis basim versus densiuscule barbellatis; calycis tubus 2.5-3 mm altus, lobis interioribus membranaceis 7-7.5 mm longis apice rotundato, dentibus exterioribus acutis quam lobos interiores 5-6 mm longioribus. Petala 20-24 X 14-18 mm obovata apice rotundato-truncato. Stamina paulo dimorphica glabra, filamentis 13 vel 12 mm longis, antherae poro apicali paulo dorsaliter inclinato. Stamina maiora: antherarum thecae 12 mm longae, cornu basali 3 mm longo, appendice dorsali ascendente 1.5 mm longa. Stamina minora: antherarum thecae 9 mm longae, cornu basali

2.5 mm longo, appendice dorsali ascendente 0.5 mm longa. Stylus 15 X 0.8-0.6 mm glaber in ovarii apice 1.4 mm immersus; stigma truncatum 0.8 mm latum; ovarium glabrum apice paulo (0.4 mm) lobulato.

Type Collection: C. Vargas C. 13240 (holotype US 2438703; isotype CUZ), collected at Hacienda Guayanay, Prov. Convención, Depto. Cuzco, Peru, elev. 1800 m, 15 May 1960. "Arbusto 3 m in bosques secundarios."

While the ascending dorsal connective appendages would place M. vargasii in Sect. Adelbertia Triana, probably genetically closer relatives are to be found in Sect. Umbellatae among such species as M. steyermarkii Gleason, M. quintuplinervis (Karst.) Naud., and M. cuneifolia Gleason. Meriania boliviensis Cogn., placed originally in Sect. Meriania but later in Sect. Umbellatæ, was illustrated by Gleason (Phytologia 2: 295. 1947); this illustration shows a distinct dorsal ascending tooth on the anther connective. The Bolivian species differs from M. vargasii in the shorter sparser pubescence and elliptic markedly pli-nerved leaves (the inner pair of primary lateral veins diverging from the costa 2.5-3.5 cm above the blade base). Both M. arborea and M. calophylla have considerably thicker basally nerved elliptic leaves; the former species has reticulate-bullate upper leaf surfaces, while the latter shows very short hypanthial pubescence.

Vargas 10644 (US), from Tunquimaya, Prov. Convención, Cuzco, is certainly conspecific with M. vargasii and, in vegetative features, agrees quite well. However, the flowers of the Tunquimayo specimen are somewhat smaller and the totally adnate external calyx teeth are not emergent (about 1 mm shorter than the calyx lobes); the large anthers have a distinct ascending dorsal tooth on the connectives, while the small anthers have only the barest suggestion of such a tooth. I hesitate to formally describe a variety without further collections.

MICONIA LITTLEI Wurdack, sp. nov.

Sect. Tamonea. M. longicaudatae Cogn. et M. leucanthae Gleason affinis, sed floribus minoribus.

Arbor 6-15 m alta; ramuli primum sulcato-quadrangulati demum teretes sicut petioli inflorescentia pilis stellulatis vel paulo pinoideis vix 0.1 mm altis minutis densiuscule furfuracei demum glabrati. Petioli (2-)3-7.5 cm longi graciles; lamina (acumine excluso) (9-)12-21 X 5-14 cm tenuis inconspicue undulato-serrulata apice subabrupte per 2-4 cm caudato-acuminato basi late obtusa, 5-nervata (pare debili inframarginali neglecto) nervis secundariis 5-7 mm inter se distantibus subtus creberrime elevatis nervis tertiariis subtus paulo elevatis nervulis subtus planis et creberrime reticulatis (areolis irregularibus 0.2-0.4 mm latis), supra glabra, subtus in nervis primariis primum modice pinoideo-furfuracea pilis 0.2 mm longis tarde glabrata in nervis secundariis primum sparse stellulato-puberula mox glabrata in superficie glabra. Panicula 7-10 (vel in statu fructifero usque ad 15) cm longa pyramidata multiflora; flores 5-meri,

pedicellis ca. 1.5 mm longis plerumque ad medium articulatis, bracteolis 0.5-0.6 X 0.1 mm linearibus valde caducis. Hypanthium (ad torum) 1.9 mm longum extus densiuscule minutissimeque stellulato-puberulum; calycis tubus 0.3 mm altus, lobis interioribus 0.8 mm altis late ovatis apice hebeti-acuto, dentibus exterioribus inconspicuis omnino adhaerentibus non eminentibus. Petala 2.8 X 2 mm extus centraliter modice granulosa obovata apice asymmetrice rotundato. Filamenta 2.3-2.6 mm modice pilis glanduliferis 0.1 mm longis ornata; antherarum thecae 2.3-2.5 X 0.4 mm oblongo-subulatae minute porosae, connectivo simplici non prolongato. Stylus 3.5 X 0.45 mm basim versus densiuscule glanduloso-puberulus pilis 0.05 mm longis in ovarii apice paulo immersus; stigma capitellatum 0.7 mm diam.; ovarium 3-loculare 1/3-inferum superne costatum in angulis apicem versus modice puberulum pilis 0.05 mm longis non glandulosis; fructus sphaeroideus 3-3.5 mm diam. paulo 10-costatus.

Type Collection: E. L. Little 6177 (holotype US 1877635), collected in wet tropical forest 12 km west of Santo Domingo de los Colorados on the trail to Rancho Grande, Prov. Pichincha, Ecuador, 5 April 1943. "Small tree 20 ft., DBH 3 in. Flowers white to pink. Vern. name: Colcha."

Paratypes (all from Prov. Esmeraldas, Ecuador): 4 km west of Borbón, Little 6380 (US); across Río Quinindé from Quinindé, elev. 65 m, Little 6249 (US); right shore of Río Esmeraldas opposite Quinindé (Rosa Zarate), Asplund 16338 (S); "Carretera Santo Domingo de los Colorados-Quinindé, km 171-188, hasta el Río Cócola, alt. 100 m.s.m.," Acosta Solis 16219 (F).

Both suggested relatives have hypanthia plus calyx lobes 3.5-4 mm long and petals 4-6 mm long; the Venezuelan and Costa Rican populations are dubiously distinct from one another. The Peruvian M. doneana differs from M. littlei in the much larger prominently bracteate flowers; a recent collection of M. doneana is Schunke A118 (US), from Schunke Hacienda above San Ramón, Junín. Miconia caudata (Bonpl.) DC. has persistently furfuraceous lower leaf surfaces and slightly larger flowers with oblate calyx lobes only 0.3-0.5 mm long.

MICONIA CERCOPHORA Wurdack, sp. nov.

Sect. Tamonea. A speciebus 22-25 et 36 Monographiae Cogniauxii foliis supra strigulosis differt.

Ramuli primum sulcato-quadrangulati demum teretes sicut petioli foliorum venae primariae subtus inflorescentia hypanthiaque modice furfuracei pilis stellulatis vel paulo pinoideis 0.1 (-0.2) mm longis. Petioli 3.5-6.2 cm; lamina (acumine excluso) 14-18.5 X 7.5-10.5 cm tenuis indistincte undulato-serrulata ovato-elliptica apice subabrupte per 2-3 cm caudato-acuminato basi late obtusa, 5-nervata (pare inframarginali debili neglecto) nervis secundariis 3-5 mm inter se distantibus supra planis subtus creberrime elevatis nervulis subtus planis et reticulatis areolis 0.2-0.3 mm latis, supra sparse setulosa pilis simplicibus ca. 1 mm longis et 1/mm quad. laxis, subtus in nervulis minute granulosa in superficie glabra. Panicula 15 X 10 cm pyramidata

submultiflora; flores 5-meri, pedicellis 1(-2) mm longis robustis, bracteolis 1.1-1.7 X 0.3-0.5 mm caducis. Hypanthium (ad torum) 1.3 mm altum; calycis tubus 0.4 mm altus, lobis interioribus 0.3 X 1.2-1.3 mm oblatis apice rotundato-truncato, dentibus exterioribus acutis 0.1-0.15 mm eminentibus. Petala 5 X 3-3.5 mm oblongo-obovata apice rotundato et asymmetrice retuso, extus centraliter modice stellulato-puberula intus minutissime granulosa. Stamina glabra in dimensionibus paulo anisomorphica; filamenta 5-5.8 mm; antherarum thecae 5.4 X 0.9 X 1 mm vel 4.9 X 0.7 X 0.8 mm margine convoluto apice minute (0.2 mm) uniporoso, connectivo dorsaliter 0.3-0.4 vel 0.1 mm prolongato truncato. Stylus 12 X 0.6 mm glaber in ovarii apice 0.4 mm immersus; stigma capitellatum 1.1 mm diam.; ovarium 3-loculare 1/6-inferum apicem versus minutissime granulosum.

Type Collection: E. Asplund 19526 (holotype S), collected in rastrojo at Shell Mera, Prov. Napo-Pastaza, Ecuador, elev. 1000 m, 1 Mar. 1956. "Shrub about 3 m high, calyx pale green, petals white, anthers pink."

All of the species of Miconia in Sect. Tamonea with caudate-acuminate leaf blades have the upper leaf surfaces glabrous. Apart from the leaf pubescence and glabrous filaments, M. cercophora resembles in general aspect M. leucantha Gleason and M. longicaudata Cogn. Miconia ciliaris Triana has upper leaf surface pubescence similar to (albeit slightly longer than) that of M. cercophora, but differs in the apically gradually acuminate and basally cordulate leaves, as well as (ex descr.) the glandular-puberulous filaments and style. Two recent Peruvian collections (US), unfortunately not in flower, of M. ciliaris are Killip & Smith 24739 (San Ramón, Junín) and 24959 (Colonia Perene, Junín).

MICONIA MITUANA Wurdack, sp. nov.

In systema Cogniauxii M. aureoidei Cogn. affinis, sed petiolis foliis juvenilibus supra inflorescentiisque sparse setulosis foliis 7-nervatis bracteis maioribus.

Ramuli primum quadrisulcati demum teretes sicut petioli foliorum laminae subtus inflorescentia bracteae extus hypanthiaque dense stellulato-furfuracei et (sicut petioli foliorum venae primariae subtus inflorescentiae rami pedicellique) sparse vel modice setulosi pilis erectis laevibus usque ad 1 mm longis in inflorescentia p. p. glanduliferis. Petioli 3-6.5 cm; lamina 10-15.5 X 6.5-11 cm tenuiter coriacea indistincte sinuato-denticulata ovato-elliptica apice per ca. 1 cm subabrupte hebetiacuminato et mucro 1-2 mm longo terminato basi rotundata vel inconspicue (ad 3 mm) cordulata, 7-nervata (pare tenui inframarginali neglecto) nervis secundariis 4-5 mm inter se distantibus sicut nervis tertiariis subtus creberrime elevatis nervulis reticulatis (areolis 0.3-0.5 mm latis) sed ob indumentum occultis, supra primum sparse brevisetosa (pilis 1-1.5 mm longis simplicibus laevibus i. s. luteis) demum glabrata densissime granulis albidis immersis obsita. Panicula 9-13 cm longa ramis primariis in nodis 4-6-verticillatis, ramulis ultimis plerumque 5-verticillatis; flores 6-meri, pedicellis ad anthesim 8-10 mm longis;

bracteae duae ad hypanthii basim insertae 9-10 X 6 mm obovato-ellipticae ad anthesim caducae intus sparse vel modice stellulato-puberulae. Hypanthium (ad torum) 5.5 mm; calyx ca. 3.5-3.8 mm altus ad anthesim in lobis 3-4 irregulariter dehiscens extus modice et intus sparse stellulato-puberulus, dentibus exterioribus invisis; torus pilis stellulato-fasciculatis 0.3-0.5 mm longis ornatus. Petala 8.5 X 4 mm apicem versus graciliter ciliolata alioqui glabra obovato-oblonga apice cucullato et paulo retuso. Stamina isomorphica glabra; filamenta 9-10 mm; antherarum thecae 11.5-12 mm longae subulatae, connectivo dorsaliter basim versus per ca. 3 mm paulo elevato ventraliter minute (0.5 mm) bilobulato. Stylus 15 X 0.4-0.8 mm centraliter sparsissime stellato-puberulus; stigma capitellatum 1.7 mm diam.; ovarium 4-loculare vix (1/10) inferum basim versus glabrum apice in collo argenteo-strigilloso 1.2 mm alto circum stylum protracto.

Type Collection: Bassett Maguire, Celia K. Maguire, & Alvaro Fernandez 44089 (holotype US 2325852; isotypes COL, NY), collected at woodland edge, Cerro Mitú, Vaupés, Colombia, elev. 400 m, 4 Sep. 1959. "Tree to 10 m; petals pink or orange-red at base; stamens wholly yellow. Occasional."

Miconia aureoides has stem, foliar, and inflorescence pubescence of short thick pinoid hairs, 3- or faintly 5-plinerved leaves, ovate bracts only about 2 mm long, and much shorter anthers. An isotype (NY) of M. aureoides shows both filaments and style puberulous and the stamen connective basally with lateral sessile glands; thus, despite the irregularly lacerate calyx, probably M. glandulifera Cogn. and M. ciliaris Triana are closer relatives than Cogniaux' arrangement would indicate. As suggested by Macbride, M. glandulifera is probably synonymous with M. muricata (D. Don) Triana. Miconia mituana has the general aspect of M. dodecandra (Desr.) Cogn. (as I had earlier and incorrectly named the Mitu collection), but that widespread species has a regularly lobed calyx and (usually) 5-nerved leaves which are glabrous above.

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MICONIA CARPISHANA Wurdack, sp. nov.

Sect. Amblyarrhena. M. centrophorae Naud. in systema Cogniauxii affinis sed foliis integris.

Ramuli primum obtuse quadrangulati demum teretes sicut petioli inflorescentiaque dense furfuracei pilis usque ad 3 mm longis crassis dense asperis tarde glabrati. Petioli 0.5-1 cm; lamina 6-8 X 2.7-4 cm integra coriacea anguste ovata apice per 0.5-1 cm gradatim hebeti-acuminato basi obtusa vel rotundata, 5-nervata pare exteriore tenui inframarginali nervis secundariis 3-5 mm inter se distantibus subtus tenuibus et paulo elevatis nervulis obscure elevatis et crebre reticulatis, supra glabra, subtus in nervis nervulisque primum sparse furfuracea mox glabrata. Panicula 4-7 X 3.5-6 cm multiflora; flores 5-meri conferti 0.5-1.2 mm pedicellati, bracteolis 0.8-1.5 X 0.1-0.5 mm furfuraceis valde caducis. Hypanthium (ad torum) 1.6 X 1.8 mm sparse (vel basim versus modice) furfuraceum pilis appressis irregulariter stellulatis; calycis tubus 0.2 mm altus, lobis interioribus

0.4 mm altis rotundatis, dentibus exterioribus callosis non eminentibus. Petala 1.2-1.3 X 1.2-1.3 mm extus glabra intus minutissime papillosa suborbicularia apice rotundato. Stamina isomorphica glabra; filamenta 2 mm longa; antherarum thecae 1.4 X 0.5 X 0.5 mm oblongae apice dorsaliter inclinato et minute (0.15-0.2 mm) poroso, connectivo simplici vel dorsaliter dente hebeti 0.1 mm longo descendente ornato. Stylus 4 X 0.3 mm glaber apicem versus paullulo clavatus in ovarii apice 0.5 mm immersus; stigma truncatum 0.45 mm diam.; ovarium 2(?)-loculare 1/2-inferum apice conico glabro minute (0.2 mm) denticulato.

Type Collection: Bassett Maguire & Celia K. Maguire 44436 (holotype US 2444821; isotype NY), collected on the west side of Carpish Pass, Depto. Huánuco, Peru, elev. 2850 m, 22 Oct. 1959. "Tree to 5 m. Flowers white."

Miconia centrophora has denticulate leaf blades with conspicuous secondary veins, straight stiff trichomes mixed with the scurfy ones in the inflorescence, and a setulose ovary apex; M. chrysanthera Cogn. shows the same vegetative differences as M. centrophora, as well as longer pedicels. Miconia crassifolia Triana has denticulate leaf blades with conspicuous secondary and tertiary nerves on the lower surface, pedicels 1-3 mm long, and a densely fine-setulose calycine torus. Miconia pichinchensis Benth. has some simple branchlet hairs, ciliolate leaf blades, and sparsely glandular-puberulous filaments and style. Miconia ignaria Bonpl. ex Naud., keyed by Cogniaux to the species grouping around M. centrophora, actually is, because of its formless foliar pubescence, closely related to M. lutescens (Bonpl.) DC. In leaf texture, M. carpishana resembles M. obovata Triana and M. spatellophora Gleason. The former species differs at least in leaf shape and (if my tentative identifications of Pennell 3152 from Tolima and Bro. Tomas 2391 from Caldas are correct) the obovate broadly pored anthers (of Sect. Cremanium, rather than Sect. Amblyarrhena); the latter has oblong narrower leaves and shorter sepals.

MICONIA BENEOLENS Wurdack, sp. nov.

Sect. Amblyarrhena. M. tererae Naud. et M. cookii Gleason affinis, sed foliis minoribus inflorescentiae ramis ramulisque amorpho-furfuraceis.

Ramuli primum hebeti-quadrangulati demum teretes, primum sicut petioli inflorescentiaeque amorpho-furfuracei demum glabrati. Petioli 1-2 cm; lamina 4.5-7.5 X 2-4 cm subrigida integerrima elliptica vel paulo obovato-elliptica apice hebeti-acuto vel breviter (usque ad 0.5 cm) lateque hebeti-acuminato basi late acuta, breviter (2-3 mm) triplinervata nervis secundariis 1.5-2 mm inter se distantibus supra paulo impressis subtus inconspicue elevatis nervulis anastomosantibus areolis ca. 0.5 mm latis, supra glabra et nitidula, subtus in nervis primariis primum sparse amorpho-furfuracea mox glabrata alioqui glabra. Panicula 5.5-7 X 3.5-5 cm pyramidata multiflora; flores 5-meri (0.5-)1-2 mm pedicellati, bracteolis 0.7-0.8 X 0.1-0.15 mm in pedicelli medio vel paulo supra insertis valde caducis. Hypanthium (ad torum)

1.8-2 mm altum glabrum vel primum tenuiter amorpho-furfuraceum mox glabratum; calycis tubus 0.3-0.4 mm altus, lobis interioribus 0.4-0.5 mm altis oblongis vel oblongo-triangularibus apice rotundato et sparse furfuraceo, dentibus exterioribus obscuris non eminentibus. Petala 1.4-1.9 X 1.4-1.9 mm extus glabra intus granulosa suborbicularia paulo apice asymmetriceque retuso. Stamina isomorphica glabra; filamenta 1.7-2.1 mm; antherarum thecae 1.4-1.6 X 0.5-0.6 X 0.5-0.6 mm oblongae apice uniporoso (poro 0.1-0.15 mm diam. paulo dorsaliter inclinato), connectivo nec prolongato nec appendiculato. Stylus 4 X 0.3-0.4 mm glaber vel sparsissime glanduloso-puberulus in ovarii apice 0.5 mm immersus; stigma truncatum 0.5 mm diam.; ovarium 1/3-inferum apice conico 0.6 mm alto glandulis 5 et 0.05 mm longis coronato.

Type Collection: J. A. Steyermark 54789 (holotype US 1933469; isotypes F, NY), collected on the western slopes of the Cordillera Condor and northwest slopes of Nudo de Sabanillas around Tambo Cachiyacu, along Río Cachiyacu about 2 leagues southeast of Yangana, Prov. Loja, Ecuador, elev. 2000-3000 m, 19 Oct. 1943. "Tree 35 feet tall; flowers very fragrant; almost like rich perfume of lilac; filaments erect, straight, white; calyx pale green; anthers dull yellow; leaves subcoriaceous, deep green above, pale green below; petiole red; in forest with Cinchona officinalis "hoja de lucma."

Paratype: Reinaldo Espinosa E-1078 (F, NY), from Namanda, Loja, Ecuador, elev. 1500-1600 m, 24 Nov. 1946. "Arbusto coposo. Hojas coriáceas, brillantes, claras en el envés. Racimos florales muy apretados. Flores color blanco, cáliz amarillento. Crece in bosque achaparrado."

Both suggested relatives have leaf blades 10-22 cm long, as well as glabrous inflorescences. Miconia terera has smaller flowers (anthers ca. 1 mm long) and petals densely furfuraceous on both sides (see Klug 3223, distributed mistakenly as M. elongata Cogn.; Skutch 4476, distributed mistakenly as M. cookii; and Asplund 18365). Miconia cookii has laxer leaf venule areoles (ca. 1 mm across) than M. beneolens. Steyermark 54789 was distributed originally as M. crocea (Desr.) Naud., but is not at all closely related to that species. I was not able to determine the ovary-cell number from the available collections of M. beneolens.

MICONIA MOLINOPAMPANA Wurdack, sp. nov.

Sect. Cremanium. M. globuliflorae (Rich.) Triana in foliorum forma similis, sed ramulis primum rotundato-quadrangulatis, pedicellorum bracteis minoribus antheris biporosis differt.

Frutex 0.3-0.7 m altus glaber. Ramuli primum obscure quadrangulati demum teretes. Petioli 0.4-1.2 cm longi graciles; lamina 2.5-5 X 1.4-2 cm subcoriacea distincte ciliolato-serrulata ciliis incurvis crassis ca. 0.5 mm longis et ca. 1-1.5 mm inter se distantibus elliptica vel oblongo-elliptica apice acuto vel paulo (per 0.3-0.5 cm) hebeti-acuminato basi late acuta vel obtusa, trinervata (nervis primariis lateralibus interdum subtus

basim versus per 1-3 mm costa coalitis) nervis secundariis gracilibus supra et subtus planis vel paulo impressis 1.5-2 mm inter se distantibus tertiariis reticulatis areolis 0.8-1 mm latis. Panicula 5-7 X 3-5 cm submultiflora; flores 5-meri, pedicellis 1-1.5 mm longis, bracteolis 0.5-1 X 0.05-0.15 mm ca. 1 mm infra hypanthii basim insertis mox deciduis. Hypanthium (ad torum) 1.1-1.8 X 1.6-1.7 mm; calycis tubus 0.3-0.4 mm altus, lobis interioribus 0.3-0.4 mm altis basim versus remotiusculis apice rotundato, dentibus exterioribus acutis callosis lobos interiores aequantibus. Petala glabra 1-1.3 X 0.9-1.3 mm oblongo-elliptica vel subrotundata apice rotundato et paulo emarginato. Flores femininei: stamina abortiva glabra, filamentis 1.3 mm longis, antherarum thecis oblongis 0.9 X 0.25 mm late biporosis; stylus 2.6 X 0.35 mm glaber in ovarii apice 0.6 mm immersus; stigma capitellatum 0.7 mm diam.; ovarium 3-loculare glabrum 1/2-inferum apice conico glabro 0.6 mm alto. Flores masculini: filamenta 1.8-1.9 mm longa, antherarum thecis 0.8 X 0.4 X 0.5 mm late (0.4 mm) biporosis, connectivis infra loculos 0.3 mm prolongatis incrassatis; ovarium abortivum, stylo incluso 0.5 X 0.15 mm apice truncato non expanso.

Type Collection: J. J. Wurdack 1389A (holotype US 2404293; isotype USM; 7 additional isotypes to be distributed), collected in the jalca zone 1-5 km west of Molinopampa, Prov. Chachapoyas, Depto. Amazonas, Peru, elev. 2400-2450 m, 18 July 1962. "Flowers white. Occasional."

Paratype: Wurdack 1389B, with the same locality data.

Miconia globuliflora has sharply 4-angled branches, rather persistent pedicellar bracteoles 1.5-2 X 0.4-0.8 mm, and anthers with a second septum extending nearly to the thecal apex. While some collections of M. glaberrima (Schlecht.) Naud. closely resemble M. molinopampana, that Central American species has the inflorescence branchlets at each node mostly in fours rather than paired. The immediately available material (Macbride 5771, US) of M. glaberrima var. australis is imperfect, but the pubescence indicates that the Junín (Peru) plants are not conspecific with the frequently collected Central American species (nor with M. molinopampana). Miconia rubens (DC.) Naud. has much smaller petals and anthers; as suggested by Macbride and confirmed by Gleason's notes from Berlin, the Peruvian record of this species is surely based on a misidentification, Weberbauer 4105 having setulose branchlets and petioles as well as barbellate primary vein axils on the lower leaf surfaces. The type collection of M. molinopampana is female, while Wurdack 1389B is male.

Wurdack 1428, also assigned to M. molinopampana, was collected in a sheltered ravine on Cerro Malcabal, above Molinopampa; this collection has larger leaves (to 10 X 4.5 cm) than the extensive type collection from the exposed (but lower elevation) jalca, but similar qualitative vegetative features and identical flowers. The only other sympatric species of the small-flowered group in Sect. Cremanium is M. dumetosa Cogn.; that species is also apparently dioecious, with Wurdack 1433 (Cerro Malcabal, Amazonas) being male while Weberbauer 4389 (BR) is female. A

recent male collection from Carpish, Huánuco (Ferreyra 2376, US, USM) also seems referable to M. dumetosa, although having slightly longer cauline pubescence and thicker petioles. Miconia gleasoniana Wurdack has much the general aspect of M. dumetosa, but shows 4-pored anthers and hermaphroditic flowers. Miconia crassistigma Cogn. (Weberbauer 3407, BR) is certainly specifically distinct from M. dumetosa (although also from Huánuco); only female flowers are currently known and the species should be evaluated in connection with M. galactantha Naud. when more material is collected.

HENRIETTELLA MAGUIREI Wurdack, sp. nov.

H. membranifoliae Cogn. affinis, sed foliis crassioribus supra glabris sclerideis occultis differt.

Ramuli robusti obtuse quadrangulati, sicut petioli et folia subtus primum densiuscule pilis erectis 0.2-0.5 mm longis dense asperis armati tarde glabrati. Petioli 1-1.5 cm longi robusti; lamina 13-18 X 8.5-13 cm rigide coriacea integra late elliptica apice late acuto basi obtusa, breviter (5-7 mm) triplinervata (pare inframarginali debili neglecto) nervis secundariis 6-8 mm inter se distantibus supra impressis subtus prominenter elevatis nervulis supra obscuris subtus elevato-reticulatis, supra glabra. Flores in ramulis infra folia fasciculati plerumque 4-meri; pedicelli ca. 5 X 0.3 mm ebracteolati pilis clavatis 0.05 mm longis appressis modice armati. Hypanthium (ad torum) 1.6 X 1.9-2 mm glabrum; calycis tubus 0.3-0.4 mm altus undulate (0.1-0.3 mm) lobatus lobis remotis. Petala 2 X 2 mm rhomboidea apice late acuto. Stamina isomorphica glabra; filamenta 1.8 mm; antherarum thecae 1.5 X 0.6 X 0.6 mm apice paulo emarginato poro 0.4 mm lato dorsaliter inclinato, connectivo dorsaliter ad basim dente hebeti 0.2 mm longo armato. Stylus 5 X 0.5-0.4 mm glaber in ovarii apice immersus; stigma truncatum 0.45 mm diam.; ovarium 4(?)-loculare 2/3-inferum apice conico 8-sulcato 0.5 mm alto glabro.

Type Collection: Bassett Maguire & Celia K. Maguire 44011 (holotype US 2444809; isotypes COL, NY), collected on steep slopes in scrub forest 30 km west of Cajamarca, Depto. Tolima, Colombia, elev. 3200 m, 18 Aug. 1959. "Stems short. Frequent."

Henriettella membranifolia has membranous leaf blades which are sparsely strigulose above and with obvious linear mesophyll inclusions. Henriettella fascicularis (Sw.) Triana and its 5-merous South American analogue, H. sylvestris Gleason, both have much thinner leaf blades sparsely strigulose above and with mesophyll inclusions, as well as petals 2.5-4 mm long. Crystal inclusions in the leaves of H. maguirei certainly cannot be seen superficially. Some of the material of the type collection may have been distributed under the collection number 44010, which is actually Tibouchina paleacea (Triana) Cogn. Some doubt also exists as to the correctness of the type locality; there is a possibility that the specimens may have been gathered along the Buenaventura-Bogotá highway at lower elevations before reaching Cajamarca; Padre Uribe is attempting to recollect the species.